

## Chapter 2: Inside our Earth

**Question 1:** Answer the following questions.

(i) What are the three layers of the earth?

**Answer:** The three layers of the earth are :-

- Crust: It is the uppermost layer of the Earth's surface.
- Mantle: The layer between Crust and Core.
- Core: It is the innermost layer of the Earth surface.

(ii) What is a rock?

**Answer:** Any natural mass of mineral matter that makes up the earth's crust is called a rock. Rocks can be of different colour, sizes and textures.

(iii) Name three types of rocks.

**Answer:** The three major types of rocks are:-

- Igneous rocks
- Sedimentary rocks
- Metamorphic rocks.

(iv) How are extrusive and intrusive rocks formed?

**Answer:** When this molten lava comes on the earth's surface, it rapidly cools down and becomes solid. Rocks formed in such a way on the crust are called extrusive igneous rocks.

Example - Basalt.

When the molten magma cools down deep inside the earth's crust. Solid rocks so formed are called intrusive igneous rocks.

Example- Granite.

(v) What do you mean by a rock cycle?

**Answer:** The process of transformation of the rock from one to another is known as the rock cycle.

(vi) What are the uses of rocks?

**Answer:** The hard rocks are used for making roads, houses and buildings.

(vii) What are metamorphic rocks?

**Answer:** Metamorphic rocks are those which are formed when the igneous and sedimentary rocks change their form under great heat and pressure.

**Question 2:** Tick the correct answer.

(i) The rock which is made up of molten magma is

- (a) Igneous
- (b) Sedimentary
- (c) Metamorphic

(ii) The innermost layer of the earth is

- (a) Crust
- (b) Core
- (c) Mantle

(iii) Gold, petroleum and coal are examples of

- (a) Rocks
- (b) Minerals
- (c) Fossils

**(iv) Rocks which contain fossils are**

- (a) Sedimentary rocks
- (b) Metamorphic rocks
- (c) Igneous rocks

**(v) The thinnest layer of the earth is**

- (a) Crust
- (b) Mantle
- (c) Core

**Answer:**

- (i). (a) igneous
- (ii). (b) core
- (iii). (b) minerals
- (iv). (a) sedimentary rocks
- (v). (a) Crust

**Question 3: Match the following.**

(i) Core	(a) Earth's surface
(ii) Minerals	(b) Used for roads and buildings
(iii) Rocks	(c) Made of silicon and alumina
(iv) Clay	(d) Has definite chemical composition
(v) Sial	(e) Innermost layer
	(f) Changes into slate
	(g) Process of transformation of the rock.

**Answer:**

(i) Core	(e) Innermost layer
(ii) Minerals	(d) Has definite chemical composition
(iii) Rocks	(b) Used for roads and buildings
(iv) Clay	(f) Changes into slate
(v) Sial	(c) Made of silicon and alumina

#### Question 4: Give reasons.

(i) We cannot go to the centre of the earth.

**Answer:** We cannot go to the centre of the Earth because :-

- the temperature and pressure at the centre of the Earth is very high.
- To reach the centre of the earth one will have to dig a hole 6000km deep on the ocean floor which is quite impossible.

(ii) Sedimentary rocks are formed from sediments.

**Answer:** Rocks roll down, crack, and hit each other and are broken down into small fragments. These smaller particles are called sediments. These sediments are transported and deposited by wind, water, etc. These loose sediments are compressed and hardened to form layers of rocks. These types of rocks are called sedimentary rocks. For example, sandstone is made from grains of sand. These rocks may also contain fossils of plants, animals and other microorganisms that once lived on them.

(iii) Limestone is changed into marble.

**Answer:** Igneous and sedimentary rocks can be changed into metamorphic rocks under great heat and pressure.

Limestone is an igneous rock and it can be changed into marble under heat and pressure.

#### Question 5: For Fun:

(i). What are the minerals most commonly used in the following objects?

(ii) Identify some more objects made up of different minerals.



**Answer:** (i). Karhai - Iron

Ornaments- Gold

Pan/Tawa- Iron

Bell- Bronze

Hammer- Iron

Lamp- Bronze

**Answer:** (ii) Copper is used in the manufacture of electrical wire, copper pipes for water, copper cookware.

Salt used in our foods is made up of sodium and chlorine.

Chalks used in schools is a limestone.

Chalkboards are made up of slate.

Ceramics cups is made up of clay mudstone.

Graphite in pencils.

Door knobs and handles of Iron.

Diamond jewellery.

**Activity:**

Collect pictures of some monuments and find out which are the rocks used to build them. Two pictures have been collected for you.



*The Red Fort is made of red sandstone*

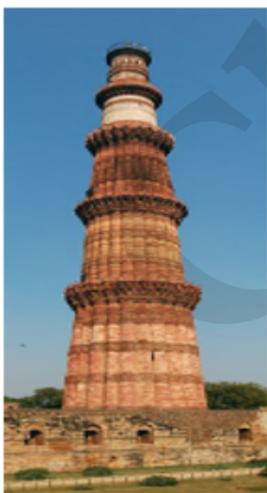


*The Taj Mahal is made of white marble*

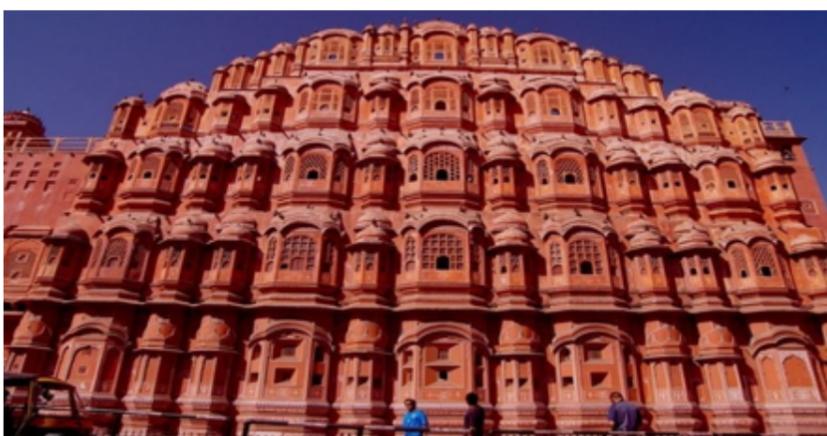
**Answer:**



**Humayun's tomb :** The structure is of dressed stone clad in red sandstone with white and black inlaid marble borders.



**Qutub Minar:** made up of red sandstone and white marble.



**Hawa Mahal of Jaipur:** Built from red and pink sandstone.



**India Gate:** is made up of Sandstones.

Champstreet